HA 3: Severe Weather

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1.0 Introduction

Coordinating Agency:

Lewis & Clark County Disaster & Emergency Services (LCCO DES)

Cooperating Agencies:

- All City & County Departments
- St. Peter's Hospital
- Emergency Medical Services (EMS)
- Local School Districts
- Local Churches
- United Way
- American Red Cross
- Civil Air Patrol

- Local Volunteer Groups
- Access & Functional Needs Facilities
- Salvation Army
- Capital City Amateur Radio Club (CCRC)/Amateur Radio Emergency Services (ARES)
- Montana Disaster & Emergency Services
- Montana Department of Public Health & Human Services

1.1 Purpose

The purpose of this annex is to supplement the Lewis & Clark County EOP by establishing policy and procedures/guidelines specific to severe weather. It is not intended to define Standard Operating Procedures/Guidelines (SOP/SOG) for any particular agency, but to provide a framework for operations in the event of mutual aid between agencies. Special emphasis is placed on the use of mitigation, phased planning, and public education to increase the safety of the citizens of Lewis & Clark County.

1.2 Scope

This annex addresses pre-storm warning and preparations, response during and immediately after a storm, and general recovery actions.

1.3 Activation & Plan Maintenance

This annex may be activated independently or in conjunction with other Annexes, depending on the needs of the situation.

The primary responsibility for development and maintenance of this annex is that of LCCO DES with support from all cooperating agencies and departments.

This annex should be reviewed and revised annually, unless significant changes warrant earlier revision. Continued and regular revision and updating should keep this document valid and useful. Regular testing and exercising should establish the groundwork for efficient and expeditious delivery of assistance in times of emergency or disaster.

1.4 Policies

- This annex is effective upon approval.
- All appropriate governmental and volunteer agency resources should be used as available.
- State and Federal assistance should be sought if severe weather phenomenon causes injuries and damages beyond our response capabilities.
- * All services should be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- During and after a storm caused emergency, emergency response resources should be primarily devoted to immediate life safety actions and the recovery of public infrastructure including roads, streets, and public facilities/utilities.
- As much as possible, all agencies and organizations involved in the execution of this annex should be organized, equipped, and trained to perform all designated and implied responsibilities contained in this annex and its implementing instructions for both response and recovery operations.
- All organizations are responsible for the development and maintenance of their own internal operating and notification procedures. No part of this annex is intended to supplant agency SOP/SOGs.
- * All organizations are responsible for filling any important vacancies; recalling personnel from leave, if appropriate; and, alerting those who are absent due to other duties or assignments.
- * Personnel designated as on-scene responders or representatives to the EOC should make prior arrangements to ensure that their families are provided for in the event of an emergency, so to ensure a prompt, worry-free response and subsequent duty.

2.0 Situation & Assumptions

2.1 Situation

- Lewis & Clark County is subject to periodic severe weather each year.
- Severe weather produces such events as hail, extreme heat, high winds, snow/ice, heavy rainfall, flooding or a combination thereof.
- * Damage potential includes flooding and erosion, heavy snow or ice buildup, diminution of public services and communications and damage to or destruction of public and private property and, most seriously, loss of life.
- Flat, low-lying areas are particularly vulnerable to the effects of high winds and floods.
- The unpredictable nature of heat waves often leads people to believe that a heat spell will abate at any time. As a result, people fail to take appropriate precautions while the heat wave continues.

The County's ability to assist in the recovery or preservation of private property or residences is limited to life safety and preventing further damage to public infrastructure. Business and private property owners need to plan ahead of an emergency for such items as sandbags, private property flood protection barriers, emergency power generation, tree trimming and removal, snow removal, and specific hazard insurance (including flood and wind damage coverage and coverage for the contents of residences/ businesses).

2.2 Assumptions

- Emergencies and disasters may occur without warning at any time of day or night, and may cause mass casualties.
- * Because of access to state-of-the-art meteorology and warning systems, adequate severe weather warnings may be provided to County citizens.
- * Lewis & Clark County resources should respond initially to most of those affected by a severe weather effect; however, if damage is severe, it may take hours/days for emergency response personnel to reach all affected areas.
- In extreme conditions heavy snows or ice, flooding, property damage or personal injury - Lewis & Clark County may require State and Federal assistance.
- * Electric power may be most susceptible to damage and, at the same time, be most essential for recovery from the effects of a severe weather emergency.
- * Effective communications may be a major concern due to the disruption of telephone service and the loss and/or damage of radio antenna towers and related equipment.
- * A significant number of severe weather casualties may occur during the postemergency period from fires, electrocution, stress-related illness, snow/ice/debrisclearing accidents, etc.
- Both response and recovery operations may be hampered by snow/ice/debris blocked roads, damaged bridges or roads, and downed trees and utility poles.
- The need for increased security may exist.
- Demand for resources may be critical.
- * Enhanced public awareness via techniques such as citizen handouts, ad campaigns, evacuation routes and mapping information may be helpful.
- * The impact on homeless individuals and Special Needs Populations may increase.
- * There may be a need to assess advanced evacuation/closing of low-lying areas, businesses/industries, public parks and local campgrounds.
- * Advance preparation by health care facilities, businesses, industries, and utilities is essential to maintain needed services during response and recovery operations.

3.0 Concept of Operations

3.1 General

- Groups and individuals responsible for responding to severe weather emergencies should do so generally using procedures/guidelines parallel to their normal day-to-day operations.
- Departments understand:
 - Safety of response personnel and equipment is the first priority.
 - Second priority is to protect the lives of the citizens and visitors.
 - Third priority is the protection of property and the environment.

3.2 Notifications

- * The National Weather Service should activate the local EAS to broadcast warnings of imminent or occurring severe weather phenomenon.
- * The local National Oceanic and Atmospheric Administration (NOAA) Weather Radio station should broadcast weather watches and warnings issued by the National Weather Service (NWS). Weather radios are activated when such messages are broadcast.
- * Warning the people within the risk area should normally be directed by the Emergency Operations Center using the Emergency Alert System (EAS), sirens, mobile loud speakers, or door-to-door notification as required by the situation. The DESC or his deputy may activate the EAS by contacting the **NWS (453-8429)** to initiate the message. If phones are down, a message may be hand delivered to the primary EAS station, KCAP. Radio and TV stations should copy the message and interrupt regular programming for the broadcast.
- Notification to all appropriate response agencies should normally be done by the Dispatch Center or the DESC who maintains a list with 24-hour telephone contact points of appropriate Federal, State, County and private agencies, business or individuals who require notification or who can support emergency response or recovery operations.
- The County DESC should endeavor to provide as much advanced notice as possible to allow all emergency response personnel and appropriate County agency personnel to ensure the safety of their immediate families prior to departing for their duty assignments.
- Normal, existing communications systems should be used unless interrupted; then any means should be employed to reestablish communications. If communications are down, the most logical source of communications should be the local ARES organization, which is able to provide portable and self-sustained Ham radio communication that can link critical sites such as the EOC, shelters, hospitals and others that may be needed.

3.3 Preparedness

- * Enhance public education on relevant topics-understanding of severe weather warning systems, home safety, personal preparedness checklists, evacuation routes, pre- and post weather safety procedures/guidelines (attention to flooded roads, snow/ice conditions, hazards of electrocution, etc.).
- * Review, exercise and re-evaluate severe weather emergency plans, policies and procedures/guidelines.
- * Review resource lists (including private contractors) and availability of road-clearing equipment, four-wheel-drive vehicles, emergency generators, fuel, chainsaws, etc.
- · Review shelter availability.
- Ensure that basic procedures/guidelines are in place for rapid procurement of services, equipment and supplies.
- Pre-positioning of equipment such as snow/debris-clearing equipment, generators, light sets, fuels, food, cots, blankets, etc.; reallocation and disbursement of previously positioned equipment.
- * Testing of equipment, e.g., FAX machines, telephones, copiers and especially generators under full load for a minimum of 8 hours. Generators should be capable of functioning for several days with adequate fuel and fuel resupply.
- Implement a public education campaign regarding the importance of having a family disaster plan and 72-hour preparedness kit.
- Monitor weather reports.
- Prepare scripts covering shelter-in-place or evacuation as applicable. Provide shelter-in-place instructions or evacuation maps as appropriate. Include release instructions for media.
- Prepare radio messages for use by local radio stations during emergency broadcasts.

3.4 Response

- * Activate the EOP when severe weather poses a threat to the County.
- Activate and staff the EOC. Staffing levels may vary with the complexity and needs of the response.
- * Establish an ICS or Area Command to manage the situation and response. For larger events that cross multiple jurisdictions, consider establishing a Unified Command with neighboring jurisdictions.
- Estimate emergency staffing levels and request personnel support.
- Notify supporting agencies through applicable ESFs as well as appropriate officials.
- Identify local, state, and federal agencies/entities that may be able to mobilize resources to support local response efforts.

- Determine the type, scope, and extent of the incident (recurring). Verify reports and obtain estimates of the area that may be affected.
- Notify command staff, support agencies, adjacent jurisdictions, ESF leads/coordinators, and liaisons of any situational changes.
- Develop and initiate shift rotation plans, including briefing of replacements during shift changes. Dedicate time during each shift to preparing for shift-change briefings.
- * Confirm or establish communications links between jurisdictional EOCs including those at the county and state levels. Confirm operable telephone numbers and verify functionality of alternate communications resources.
- * Implement plans and procedures/guidelines to handle severe weather. Ensure copies of all documents are available to response personnel. Implement agency-specific protocols and Standard Operating Procedures/Guidelines (SOP/SOGs).
- * Obtain current and forecasted weather to project potential damage and determine the affected area (recurring).
- Determine the need to conduct sheltering or evacuation activities (recurring).
 Evacuation activities should be coordinated among multiple ESFs.
- * Determine the need for additional resources and request as necessary through appropriate channels (recurring).
- Submit a request for an emergency declaration, as applicable.
- * Consider activating mutual aid agreements as conditions dictate. Make initial contact with mutual aid agreement partners. Place backup personnel teams on standby and alert resource suppliers of potential and current needs.
- Coordinate resource access, deployment, and storage in the operational area including equipment, personnel, facilities, supplies, procedures, and communications. Track resources as they are dispatched and/or used.
- Develop plans and procedures/guidelines for registering mutual aid and other first responders as they arrive on the scene and receive deployment orders.
- * Establish a Joint Information Center (JIC) or coordinate with JIC(s) established by other jurisdictions. Staff JIC(s) with appropriate Public Information Officers (PIOs) as required.
- * Formulate emergency public information messages and media responses using "one message, many voices" concepts (recurring). Message content may include expected impacts of the severe weather, expected duration, instructions for public protection, and planned activities to address the emergency.
- Record EOC and individual personnel activities (recurring). All assignments, persons responsible, and actions taken should be documented in logbooks.
- Record all incoming and outgoing messages (recurring). All messages and the person sending or receiving them should be documented as part of the EOC log.

- Develop situation reports (recurring). At regular intervals, the EOC Manager and staff should assemble a situation report.
- * Develop and update the Incident Action Plan (IAP) (recurring). The IAP should be discussed at regular intervals and modified as the situation changes.
- Coordinate with private-sector partners as needed.
- * Ensure that reports of injuries, deaths, and major equipment damage accrued during response activities are communicated to the IC.

3.5 Recovery

- Ensure an orderly demobilization of emergency operations in accordance with current demobilization plans.
- Once the threat to public safety is eliminated, conduct cleanup and recovery operations.
- Conduct damage assessment activities.
- Conduct debris removal activities.
- Restore essential services as needed.
- * Activate if necessary appropriate recovery strategies, continuity of operations plans, and/or continuity of government plans.
- Continue EOC operations until it is determined that EOC coordination is no longer necessary.
- Provide public information regarding safe re-entry to damaged areas.
- Coordinate with ESF 14 for Individual Assistance.
- Conduct a post-event debriefing to identify success stories, opportunities for improvement, and development of the After Action Report/Improvement Plan (AAR/IP).
- Updates plans and procedures/guidelines based on critiques and lessons learned during an actual event.

3.6 Mitigation

- Encourage utilities to bury electric lines that could blow down to improve reliability.
- Modify vulnerable buildings to resist water penetration and wind damage.
- Publicize National Weather Service's Severe Weather Awareness Week and Winter Weather Hazards Awareness Week to help educate public on preparedness and what to do when the warnings are issued.
- Encourage utilities to apply for mitigation grants to install air flow spoilers on above ground utility lines.
- Publicize demonstrated ability of airflow spoilers to reduce power line failure.

4.0 Organization & Responsibilities

4.1 Organization

- All severe weather related incidents should be managed using the Incident Command System.
- * The EOC may be activated to monitor a potential emergency situation or to respond to or recover from a severe weather event that is occurring or has occurred.

4.2 Responsibilities

Coordinating Agency (LCCO DES)

- Give assistance and guidance to agencies & departments in the development of severe weather response plans.
- Assist in the development of pre-scripted warning messages and Special News Advisories.
- Provide severe weather awareness education to county employees and to the public.
- Monitor conditions prior to and during a severe weather particularly with respect to evacuation.
- Coordinate storm warnings and preparation actions.
- * Operate the EOC at the appropriate level, maintain a chronological log of incident events, and coordinate for resources.
- Provide County PIO with information for media releases. Provide public information if the PIO is not available.
- Coordinate with the Red Cross for any sheltering needs.
- Support the process for collection of damage assessments, document and report recovery actions, and coordinate with Montana DES.
- Hold periodic briefings when necessary for the EOC staff to exchange information.
- Notify Montana DES if it appears State or Federal assistance may be necessary.
- Participate in weather and storm related conference calls.

Cooperating Agencies

ALL

- * Report any severe weather phenomenon that merit warning local officials or the public to the 911 Dispatch Center.
- When requested, provide personnel and equipment to assist in route alerting or doorto-door warnings, SAR missions, debris cleanup and other duties as specified by the requesting authority.
- Provide a representative to the EOC during the response and recovery phases.

- Document costs for reimbursement and auditing purposes.
- Evaluate and review procedures/guidelines to ensure operational readiness.
- Assist in identifying personnel and resources to support this Annex.
- Work with LCCO DES to keep this Annex up-to-date.

911 Dispatch Center (ESF 2)

- * Receive and, if necessary, verify and acknowledge weather advisories, watches and warnings.
- * Make notification to local officials concerning severe weather phenomena or conditions that could cause such situations as required.
- * In accordance with SOP/SOG's or when directed, activate the necessary warning system(s) to alert and provide instructions to all departments and to the public.
- * Identify requirements for route alerting and door-to-door warnings for areas where other warning systems do not adequately reach the public.
- Develop and maintain hazard specific warning procedures/guidelines covering warning receipt, verification, and dissemination.

American Red Cross (ARC) (ESF 6)

- Provides shelters, feeding, emergency medical support and mass casualty assistance in accordance with established SOP/SOGs and ability.
- Conduct a windshield damage survey within the first 24 hours.
- Provide a locator service to answer inquiries about people in the disaster area.

Chief Elected Officials (ESF 5)

* Declare an emergency and/or a disaster with up to a 2-mill levy, if appropriate. Separate declarations are required for each affected jurisdiction (county, Helena, East Helena.) A disaster declaration will allow a request to the MTDES for assistance.

Public Health (ESF 8)

- Provide public health information and education concerning the effects of a severe weather event.
- Inspect food and water supplies after a severe weather event if necessary.
- Develop emergency public health regulations and orders due to a severe weather event.
- Monitor the County for signs of water/food related infection or illness.

Fire Services (ESF 4)

* Establish a station checklist that includes the stockage, inventory and/or testing of fuel, food, potable water, medical supplies, rescue equipment, chain saws, emergency generators, batteries, communications systems, vehicles, etc.

- * Consider dispersing equipment and personnel from stations to key, protected points within company areas of responsibility. This should increase survivability and response throughout the sector following passage of the storm.
- * Review and prepare for mass casualty procedures/guidelines.
- Establish liaison with Public Works to ensure mutual support.
- Provide units and personnel for route alerting and door-to-door warnings when requested.
- Activate technical rescue teams as appropriate to the event.
- Assist with evacuations.
- Assist with SAR missions.

Law Enforcement (ESF 13)

- Provide units and personnel for route alerting and door-to-door warnings when requested.
- Coordinate evacuations.
- Coordinate SAR missions.
- Provide security to evacuated areas.
- Close roads as needed and establish evacuation routes. Provide alternate routing plans.
- Coordinate road closure and debris information with Public Works. Emphasize reporting of debris and blocked roads, power outages, power lines, and possible electrical and fire hazards.

Public Works (ESF 3)

- * Establish an agency checklist that includes the stockage, inventory and/or testing of all equipment and facilities. Special attention should be provided to fuel, potable water, chain saws, emergency generators, batteries, communications systems, vehicles, etc.
- * Assist in conducting damage assessments in the aftermath of a severe weather event. Coordinate with Incident Command to inspect priority buildings first, which are essential service, hospitals, nursing homes, and shelters. Damage assessment should be reported to the EOC. See the Damage Assessment Annex for more information.
- Assess damage to bridges, streets, government buildings, dams, and containment ponds.
- Provide information on road situations to include open/closed data, bridge status and general damage.
- Oversee the repair and restoration of key facilities and systems and removal of debris in the aftermath of a severe weather event.
- Coordinate debris removal, with an emphasis on roads that need to be cleared for emergency traffic.

- Assist with restoration of basic services. Repairs to water and sewer mains, streets and bridges should be made in order of priority.
- * Assist LE with traffic control with the use of barriers and signs.
- Identify contractors who can provide heavy and specialized equipment support during emergencies and individuals and businesses that may lease equipment during emergencies.
- Closely document all emergency work under an assigned unique work order including equipment and materials used, fuel consumed, worker overtime, tipping fees and number or volume of debris loads.

Utilities

Assess damages and facilitate restoration of services.

Montana Disaster & Emergency Services (DES)

* Coordinate assistance to local government and mobilization of resources per the provisions of the Montana Emergency Response Framework.

Federal Emergency Management Agency (FEMA)

* Administers assistance to the state pursuant to <u>PL 93-288 of the Disaster Relief Act of 1974, Section 417</u>, when threat would constitute a major disaster.

5.0 Authorities and References

5.1 Authorities

* See <u>Section 5.1</u> of Basic Plan.

5.2 References

- * See <u>Section 5.2</u> of Basic Plan.
- **Lewis & Clark County Montana EOP. May 2011:** HA 3 Severe Weather.

6.0 Attachments

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Attachment 1: Acronyms

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Acronym	Meaning	
AAR/IP	After Action Report/Improvement Plan	
ARC	American Red Cross	
ARES	Amateur Radio Emergency Services	
CAP	Civil Air Patrol	
CBO	Community Based Organization	
CCRC	Capital City Radio Club	
CEO	Chief Executive Officer (also Chief Elected Official)	
DES	Disaster And Emergency Services	
DESC	DES Coordinator	
DPHHS	Dept. of Public Health & Human Services	
EAS	Emergency Alert System	
EMS	Emergency Medical Services	
EOC	Emergency Operations Center	
EOP	Emergency Operations Plan	
ESF	Emergency Support Function	
FBO	Faith Based Organization	
FEMA	Federal Emergency Management Agency	
IAP	Incident Action Plan	
ICS	Incident Command System	
JIC	Joint Information Center	
LCCO	Lewis & Clark County	
LE	Law Enforcement	
MDT	Montana Department of Transportation	
MTDES	Montana Disaster & Emergency Services	
NOAA	National Oceanic and Atmospheric Administration	
NWS	National Weather Service	
P.L.	Public Law	
PIO	Public Information Officer	
SAR	Search & Rescue	
SECC	State Emergency Coordination Center (MTDES)	
SOP/SOG	Standard Operating Procedures/Guidelines	

Attachment 2: Definitions

Advisory: Significant weather impact, but not meeting the warning criteria.

Blizzard: The most perilous of winter storms, characterized by low temperatures, strong winds, and large amounts of snow. Most of the snow accompanying a blizzard is fine, powdery particles of snow, which fall in such great quantities that at times visibility is only a few yards.

Blizzard Warning: Issued when wind speeds of at least 35 mph are accompanied by considerable falling or blowing snow and temperatures of 20 degrees F or lower are expected to prevail for an extended period of time.

Blowing and Drifting Snow: Generally occur together and result from strong winds and falling snow or loose snow on the ground. "Blowing snow" is defined as snow lifted from the surface by wind and blow about to a degree that horizontal visibility is greatly restricted.

Cold Wave Warning: Indicates an expected rapid fall in temperature within a 24-hour period that will require substantially increased protection to agricultural, industrial, commercial, and social activity. The temperature falls and minimum temperatures required to justify cold wave warnings vary with the changing of the season. Regardless of the month, a cold wave warning is an alert to the public that during a forthcoming forecast period a change to very cold weather will require greater than normal protective measures.

Drifting snow: Is used in forecasts to indicate that strong winds will blow falling snow or loose snow on the ground into significant drifts.

Flash Floods: Flash floods are the result of intense storms dropping large amounts of rain within a short period of time, rapid snowmelts or dam failures. Flash floods occur with little or no warning and can reach full peak in only a few minutes.

Flood Warning: Is a forecast of impending floods advising of the expected severity of flooding (minor, moderate, or major), the affected river or body of water, and when and where flooding will begin.

Hazardous Driving Warning: Are issued to indicate that falling, blowing or drifting snow, freezing rain or drizzle, sleet or strong winds will make driving difficult.

Heavy Snow warnings: Are issued to the public when a fall of four inches or more is expected in a 12 hour period, or a fall of six inches or more is expected in a 24-hour period.

Ice Storm: Freezing rain or drizzle is called an Ice Storm. Moisture falls in liquid form but freezes upon impact. The term "heavy" is used to indicate an ice coating sufficiently heavy to cause significant damage to trees, overhead wires, and similar objects. Ice storms are sometimes incorrectly referred to as "sleet storms."

Severe Blizzard Warnings: Are issued when blizzards of extreme proportions are expected and indicate wind with speeds of at least 45 mph plus a great density of falling or blowing snow and a temperature of 10 degrees or lower.

Severe Thunderstorm Watch: Issued by the National Weather Service when the weather conditions are such that a severe storm (damaging winds 58 miles per hour or more, or hail 3/4 of an inch in diameter or greater) is likely to develop.

Severe Thunderstorm Warning: Issued by the National Weather Service when a severe thunderstorm has been sighted or indicated by weather radar.

Sleet: Identified as frozen raindrops (ice pellets bounce when hitting the ground or other objects). Sleet does not stick to trees and wires but sleet in sufficient depths does cause hazardous driving conditions.

Snow: Snow in a forecast, without a qualifying word such as "occasional" or "intermittent", means that the fall of snow is of a steady nature and will probably continue for several hours.

Snow Flurries: Defined as snow falling for short durations at intermittent periods; however, the flurries may reduce visibility to an eighth of a mile or less. Accumulations from snow flurries are generally small.

Snow Squall: Are brief, intense falls of snow and are comparable to summer rain showers. They are accompanied by gusty surface winds.

Watch: Term used as an alerting procedure for an event that may occur.

Warning: Issued to forewarn an event that is imminent or has high probability of occurring.

Wind Chill: Wind chill is a term used to describe the rate of heat loss on the human body resulting from the combined effect of low temperature and wind. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature.

Winter Storm Watch: A storm is developing or approaching which may affect your area.

Winter Storm Warning: Severe winter weather conditions are imminent and will affect part or all of your area.

Attachment 3: Lincoln Snow Plan

Link